



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/543,015

05/09/2006

Mark Patrick

03164.0186USWO

4051

23552 7590 05/27/2009

MERCHANT & GOULD PC

P.O. BOX 2903

MINNEAPOLIS, MN 55402-0903

EXAMINER

LAUX, JESSICA L

ART UNIT

PAPER NUMBER

3635

MAIL DATE

DELIVERY MODE

05/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/543,015	Applicant(s) PATRICK ET AL.	
	Examiner JESSICA LAUX	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht (4962622).

Claims 1, 10-14. Albrecht discloses a main decking panel for a structural decking system that includes a plurality of the main decking panels, with the main decking panel including:

(a) a base (160) component that includes a central pan and lap joints (as seen on the ends in figure 19) on each side of the pan to enable adjacent main decking panels to be positioned side by side in overlapping relationship; and

(b) a strengthening component (158) in the form of an inverted channel member secured to the base component, with the channel member including two opposed side walls formed from web components and a top formed from a chord component (as seen in figure 19).

Art Unit: 3635

Albrecht does not disclose that the web and top chord components are manufactured as separate components, wherein the web components include flanges and to top chord component include down turned sides and the web and top chord components are secured together at the flanges at discreet connection locations along the length of the components and thereafter assembled together to form the channel member, but does disclose that they are integral and therefor assembled together for form the channel member.

It would have been obvious at the time the invention was made to modify the strengthening component of Albrecht to be separable parts having flanges attached together at discreet connection locations (for claims 11-13 see note below) along the length of the components, to allow for optimum fit and customization, while reducing time and cost of assembly, since the use of a one piece or multi-piece construction would be merely a matter of obvious engineering choice absent any unpredictable results.

Note: there are many various methods and designs for effecting connection between two metal plate-like elements including deformed button connections. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the connection systems of Albrecht '622 in view of Albrecht '558 or Gray to have the claimed deformed button connection as such a modification would result in fewer parts required for assembly thereby reducing the cost and time of assembly. Further it has been held that the substitution of one know element for another is considered a mere matter of obvious design choice absent any unpredictable results. In

Art Unit: 3635

the instant case connecting the components via welding, or discreet fasteners such as screws or deformed button sections all achieve the predictable result of a strengthening section securely attached to a base section.

It should be noted that claim 13 is considered a product-by-process claim. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product-by-process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985).

Claim 2. The main decking panel defined in claim 1 wherein the central pan includes at least one longitudinal stiffener (166, figure 19).

Claim 3. The main decking panel defined in claim 2 wherein the web components are secured to the base component at locations between the longitudinal stiffener or stiffeners and the lap joints (as seen in figure 19).

Claim 4. The main decking panel defined in claim 3 wherein the web components butt against the longitudinal stiffener or stiffeners and/or the lap joints (as seen in figure 19).

Claim 5. The main decking panel defined in claim 1 wherein the lap joints are formed so that a successive decking panel can be positioned in side by side overlapping relationship with another decking panel by pressing the lap joint of the successive decking panel downwardly over the lap joint of the other decking panel (as seen in figure 19).

14. (Currently Amended) The main decking panel defined in claim 1 wherein the web components include flanges and the web and top chord components are secured together at the flanges.

Claim 15. The main decking panel defined in claim 1 wherein the top chord component includes one or more than one longitudinal stiffener (164, figure 19).

Claim 16. The main decking panel defined in claim 15 wherein the stiffener or stiffeners extend along the length of the top chord component (as disclosed and seen in the figures).

Claim 18. The main decking panel defined in claim 1 wherein the web components include corrugations (98 as seen at least in figures 3, 19).

Claim 19. The main decking panel defined in claim 18 wherein the corrugations are vertical corrugations (as seen in figure 3).

Claim 20. The main decking panel defined in claim wherein web components include openings (such as at 98 as seen in figures 3, 19) to allow concrete to flow into the channel member.

Claim 21. A structural decking system formed from a plurality of the main decking panel defined in claim 1 positioned side by side with the lap joints in overlapping relationship (where Albrecht discloses connecting multiple units together (Col. 4, lines 50-60; and as can be seen from figure 19 that the units are designed to be interconnected end to end to cover the entire expanse of a desired dimension).

Claim 22. Albrecht discloses the structural decking system defined in claim 21 includes one or more than one infill decking panel (generally at 94 as seen in figures 3,

Art Unit: 3635

19) that is positioned between two main decking panels. Albrecht does not disclose that the infill decking panel is a separate unit including lap joints on each side of the pan that are in overlapping relationship with the lap joints of adjacent main decking panels, but does disclose that they are integral components.

It would have been obvious at the time the invention was made to modify the decking system to have separable main and infill decking panels rather than integral ones to allow for optimum fit and customization of sizing while reducing material waste, while reducing time and cost of assembly, since the use of a one piece or multi-piece construction would be merely a matter of obvious engineering choice absent any unpredictable results.

Claim 23. A composite slab that includes the structural decking system defined in claim 21 and a layer of hardened concrete on the structural decking system (background of invention; Col 1, lines 14-16).

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht (4962622) in view of Albrecht (4085558) or Gray (4594826).

Claims 6. Albrecht discloses the main decking panel defined in claim 1 wherein the strengthening component is secured to the base component (Col. 7, lines 59-61) but does not expressly disclose that it is secured at a plurality of discrete connection locations along the length of the channel member.

Albrecht '558 and Gray both disclose metal decking panels having base components secured to strengthening components at discrete locations (as seen in figures 14-16 at element 82 of '558 and figures 6,9-10 of Gray). At the time the

Art Unit: 3635

invention was made it would have been obvious to one of ordinary skill in the art to modify the connecting components of Albrecht '622 to be at discreet locations (as would be the case with a screw, nail or similar connection) to allow for the desired connection strength while optimizing time and cost of installation.

Claim 7-9. Albrecht '622 in view of Albrecht '558 or Gray discloses the main decking panel defined in claim 6 above, but does not disclose that the strengthening component is secured to the base component at the plurality of discrete connection locations by deformed, button shaped sections of the components at the locations that interlock the components together.

However there are many various methods and designs for effecting connection between two metal plate-like elements including deformed button connections. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the connection systems of Albrecht '622 in view of Albrecht '558 or Gray to have the claimed deformed button connection as such a modification would result in fewer parts required for assembly thereby reducing the cost and time of assembly. Further it has been held that the substitution of one known element for another is considered a mere matter of obvious design choice absent any unpredictable results. In the instant case connecting the components via welding, or discreet fasteners such as screws or deformed button sections all achieve the predictable result of a strengthening section securely attached to a base section.

It should be noted that claim 9 is considered a product-by-process claim. The patentability of the product does not depend on its method of production. Determination

Art Unit: 3635

of patentability is based on the product itself. See MPEP 2113. If the product-by-process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./

Application/Control Number: 10/543,015

Page 9

Art Unit: 3635

Supervisory Patent Examiner, Art Unit 3635

/J. L./

Examiner, Art Unit 3635